Ordered mesoporous silica cubic decorated with silver nanoparticles:
a highly active and recyclable heterogeneous catalyst for the
reduction of 4-nitrophenol

Hui-Tao Fan, a,⁎ Xue-Guo Liu, b† Xiao-Jing Xing, a Bo Li, a,⁎ Kun Wang, a Shu-Ting Chen, a Zhou Wu, a Dong-Fang Qiu a,⁎

a College of Chemistry and Pharmaceutical Engineering, Nanyang Normal University, Nanyang 473061, China
b Department of Biology and Chemical Engineering, Nanyang Institute of Technology, Nanyang 473004, China
⁎ Corresponding authors.
E-mail addresses: fanhuitao818@163.com (Hui-Tao Fan), libozzu0107@163.com (Bo Li), qiudf2008@163.com (Dong-Fang Qiu)
† These authors contributed equally to this work.

Fig. S1. FTIR spectra of OMS-C and H₂N-OMS-C.
**Fig. S2.** SEM images of OMS-C (a) and Ag-OMS-C (b).

**Fig. S3.** (a) UV-Vis spectra of 4-NP/NaBH₄ solution when adding OMS-C as catalyst at the reaction time of about 0 h and 6 h. (b) The color change of the 4-NP/NaBH₄/OMS-C mixture at the reaction time of about 0 h and 6 h.
Fig. S4. TEM image of Ag-OMS-C nanocomposites after five cycles of reaction.